What is claimed is:

1. An optical disk recording and reproducing apparatus being operative in a read mode for controlling a laser driver to maintain a laser power at a target read level so as to read a signal from an optical disk, and being operative in a write mode for controlling the laser driver to alternate the laser power between a target write level and a target bottom level comparative with the target read level so as to write a signal into the optical disk, the apparatus comprising:

a first detector being operative in the read mode for detecting a read level of the laser power, and being operative in the write mode for detecting a bottom level of the laser power;

a first controller being operative in the read mode for outputting a read level control signal according to a difference between the detected read level and the target read level, and being operative in the write mode for outputting a bottom level control signal according to a difference between the detected bottom level and the target bottom level;

a second detector operative in the write mode for detecting a write level of the laser power;

a second controller operative in the write mode for outputting a write level control signal according to a difference between the detected write level and the target write level; and

a third controller being operative in the read mode for providing the read level control signal to the laser driver, and being operative in the write mode for alternately providing the write level control signal and the bottom level control signal to the laser driver in accordance with the signal to be written into the optical disk, wherein

the first controller comprises a first sample & hold section that samples the read level control signal immediately before the read mode is switched to the write mode and that holds the sampled read level control signal after the read mode is switched to the write mode, a second sample & hold section that samples the detected bottom level immediately after the read mode is switched to the write mode and then holds the sampled bottom level, and a control section that outputs the sampled and held read level control signal as a bottom level control signal immediately after the read mode is switched to the write mode, and subsequently outputs another bottom level control signal according to a difference between the detected bottom level and the target bottom level which is given in the form of the sampled and held bottom level.

2. The optical disk recording and reproducing apparatus according to claim 1, wherein the first controller memorizes the sampled and held bottom level for recurrent use thereof as the target bottom level.

3. The optical disk recording and reproducing apparatus according to claim 1, wherein the first controller corrects the target bottom level which is given in the form of the sampled and held bottom level in accordance with a past write level of the laser power detected when the bottom level is sampled and a current write level of the laser power detected in the write mode.

4. A method of controlling an optical recording and reproducing apparatus which is operative in a read mode for controlling a laser driver to maintain a laser power at a target read level so as to read a signal from an optical disk, and which is operative in a write mode for controlling the laser driver to alternate the laser power between a target write level and a target bottom level comparative with the target read level so as to write a signal into the optical disk, the method comprising the steps of:

detecting a read level of the laser power in the read mode to generate a read level control signal according to a difference between the detected read level and the target read level;

detecting a write level and a bottom level of the laser power in the write mode to generate a write level control signal according to a difference between the detected write level and the target write level, and to generate a bottom level control signal according to a difference between the detected bottom level of the laser power and the target

bottom level;

dividing a period of the write mode into a hold period immediately after the read mode is switched to the write mode and a servo period subsequent to the hold period;

providing the read level control signal, which is sampled and held immediately before the read mode is switched to the write mode, to the laser driver in the hold period;

sampling a bottom level detected in the hold period; and

setting the sampled bottom level to the target bottom level for the servo period.